

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A cooling system for removal of heat from at least one heat generating component, the cooling system comprising:

a generally planar portion for positioning substantially near said at least one heat generating component;

a low-profile extrusion having an inner and outer external surface and having a first sealed end and a second sealed end, said low-profile extrusion being curved upon itself into a generally toroidal shape such that said second sealed end is disposed generally opposite said first sealed end, wherein said first sealed end and said second sealed end are oriented opposite from said generally planar portion; and

wherein the low-profile extrusion includes a first arcuate portion extending from the generally planar portion to the first sealed end, and a second arcuate portion extending from the generally planar portion to the second sealed end, the first arcuate portion and the second arcuate portion forming segments of a generally circular body portion, each of the first arcuate portion and the second arcuate portion having the same generally constant arc radius measured from a common focus point central to the generally circular body portion;

an interior space formed by said inner external surface of said low-profile extrusion; said low-profile extrusion having an external surface adapted for thermal connection to said at least one heat generating component;

a plurality of micro-tubes formed in the interior of said low-profile extrusion and adapted for containing a heat transfer fluid inside the micro-tubes; and

a fin structure in thermal connection with the exterior surfaces of said extrusion.

2. (Original) The cooling system of claim 1, further comprising:

a spring structure abutting said fin structure and adapted for thermal connection of said cooling system to said heat generating component.

3. (Currently Amended) A generally toroidally-shaped heat pipe cooling system for removing heat from at least one heat generating component, the system comprising:

a low-profile extrusion having a first sealed end and a second sealed end, the low-profile extrusion being curved upon itself and forming a generally toroidal shape such that said second sealed end is disposed generally opposite said first sealed end;

at least one fin structure extending from at least one surface of the low-profile extrusion;

a generally planar portion for positioning substantially near said at least one heat generating component; ~~and~~

wherein said first sealed end and said second sealed end are oriented opposite from said generally planar portion; and

wherein the low-profile extrusion includes a first arcuate portion extending from the generally planar portion to the first sealed end, and a second arcuate portion extending from the generally planar portion to the second sealed end, the first arcuate portion and the second arcuate portion forming segments of a generally circular body portion, each of the first arcuate portion and the second arcuate portion having the same generally constant arc radius measured from a common focus point central to the generally circular body portion.

4. (Original) The cooling system of claim 3, wherein the fin structure extends along at least a portion of an exterior surface of the low-profile extrusion.

5. (Canceled).

6. (Previously Presented) The cooling system of claim 1, wherein the fin structure extends along a portion of the low-profile extrusion excluding the generally planar portion.

7. (Original) The cooling system of claim 3, wherein the fin structure extends along at least a portion of an interior surface of the low-profile extrusion.

8. (Original) The cooling system of claim 3, wherein the fin structure is formed of a single extrusion.

9. (Previously Presented) The cooling system of claim 3, wherein the fin structure extends across the first sealed end and the second sealed end of the low-profile extrusion.

10. (Currently Amended) A method for cooling heat generating elements, the method comprising:

placing a generally planar portion of a generally toroidally-shaped heat pipe substantially near at least one of the heat generating elements, the generally toroidally-shaped heat pipe including a low-profile extrusion having a first sealed end and a second sealed end, the low-profile extrusion being curved upon itself forming a generally toroidal shape such that said second sealed end is disposed generally opposite said first sealed end;

drawing air across the generally toroidally-shaped heat pipe via a fan structure; and
wherein said first sealed end and said second sealed end are oriented opposite from said generally planar portion; and

wherein the low-profile extrusion includes a first arcuate portion extending from the generally planar portion to the first sealed end, and a second arcuate portion extending from the generally planar portion to the second sealed end, the first arcuate portion and the second arcuate portion forming segments of a generally circular body portion, each of the first arcuate portion and the second arcuate portion having the same generally constant arc radius measured from a common focus point central to the generally circular body portion.

11. (Previously Presented) The method of claim 10, wherein the generally toroidally-shaped heat pipe includes a fin structure along at least one of an inner and an outer surface.

12. (Original) The method of claim 11, wherein the fin structure is formed as a single extrusion.

13. (Canceled).

14. (Original) The method of claim 10, wherein the step of drawing air comprises pulling air through the generally toroidally-shaped heat pipe.

15. (Original) The method of claim 10, wherein the step of drawing air comprises pushing air through the generally toroidally-shaped heat pipe.

16. (Previously Presented) The cooling system of claim 1, wherein the low-profile extrusion includes a condenser section and an evaporator section.

17. (Previously Presented) The generally toroidally-shaped heat pipe cooling system of claim 3, wherein the low-profile extrusion includes a condenser section and an evaporator section.

18. (Previously Presented) The method of claim 10, wherein the low-profile extrusion includes a condenser section and an evaporator section.